

ENVIRONMENTAL STUDIES

Chair of Environmental Studies Academic Program: [Keith Kisselle](#)

Director of the Center for Environmental Studies: [Peter Schulze](#)

Director of Thinking Green Campus Awareness: *Mari Elise Ewing*

Faculty: *Mari Elise Ewing, Keith Kisselle, Peter Schulze*

Steering Committee: *Peter Schulze (chair), David Baker, Karánn Durland, Mari Elise Ewing, Ryan Felix, Audrey Flemming, Steve Goldsmith, Max Grober, Jessica Healy, Terry Hoops, Keith Kisselle, Wolfgang Lueckel, Wayne Meyer, Daniel Nuckols, Julia Shahid, Brad Smucker, Ivette Vargas-O'Bryan*

The Center for Environmental Studies promotes multidisciplinary inquiry of environmental issues and problems through education, research, and outreach programs. These programs are designed to increase understanding, expand community awareness, and foster greater appreciation for the interdependence of humans and other species.

Students who are interested in the environmental studies major or minor are strongly encouraged to consult with Mari Elise Ewing, Keith Kisselle, or Peter Schulze at their earliest convenience. Students also are encouraged to study the webpage of the [Environmental Studies program](#).

Degree Plans Offered in Environmental Studies

Major in Environmental Studies

Minor in Environmental Studies

A **major in environmental studies** consists of:

Introductory Course (1 course)

_____ ENVS 135 Fundamentals of Environmental Studies (offered fall and spring)

Natural Science Requirement (2 courses)

_____ ENVS 270 Environmental Science (Spring; PREQ: ENVS 135 with C or higher)

_____ BIOL 259 Conservation and Restoration Ecology (Fall; PREQ: BIOL 115)

_____ BIOL 346 Ecosystem Ecology (Spring; PREQ: BIOL 115, 116, CHEM 111, 200-level BIOL)

_____ BIOL 353 Physiological Ecology (Fall; PREQ: BIOL 115, 116, 200-level BIOL)

_____ PHY 240 Atmospheric and Environmental Physics (Spring, odd-numbered years; PREQ: PHY 111, PHY 112, MATH 151 and MATH 152)

Ethical or Conceptual Approaches Requirement (2 courses)

_____ ECO 242 Natural Resources and Environmental Econ (typically Spring; PREQ: ECO 101 or 102)

_____ PHIL 207 Ethics and the Environment (usually Spring of even-numbered years)

_____ PHIL 307 Environmental Philosophy (usually Spring of odd-numbered years; PREQ: any PHIL class and ENVS 135)

Policy Requirement (at least 2 courses)

_____ ENVS 245 Food Systems (Fall)

_____ ENVS 359 Resilient Systems (Fall; PREQ: Junior or Senior standing and ENVS 135 with C or higher)

_____ ENVS 379 Environmental Policy (Spring; PREQ: Junior or Senior standing and ENVS 135 with C or higher)

Capstone (1 course)

_____ ENVS 439 The Decision Process (Spring; PREQ: Senior standing or instructor permission and ENVS 135 with C or higher)

Electives (1 course from Electives or 1 more from above categories)

_____ ANTH 263 Whose Amazon? (usually Spring)

_____ BIOL 326 Animal Behavior (Fall; PREQ: BIOL 115 and 200-level BIOL)

_____ BIOL 358 Ornithology (offered spring of odd-numbered years; PREQ: BIOL 115 and 200 level BIOL)

_____ EAS 265 Environmental Issues in East Asia (Spring)

_____ GER 255 Green Thought/Environmentalism (Spring)

_____ GER 355 Green Thought/Environmentalism (Spring; PREQ: GER 235 or GER 236)

_____ HIST 350 Darwin (offered occasionally; PREQ: Sophomore standing)

- **Other Considerations When Planning for the Major:** Any substitutions must be approved by the chair of the Environmental Studies Academic Program. At least 3 courses for the major must be at the 300-level or higher. If Environmental Studies 135 will not fit a student's schedule, good alternatives are Biology 115 Evolution, Behavior, and Ecology, Environmental Studies 245 Food Systems, Philosophy 207 Environmental Ethics, or a prerequisite for higher level courses: Economics 101 Microeconomics, or Economics 102 Macroeconomics.
- Due to the interdisciplinary nature of environmental studies the major satisfies the science and social science breadth requirements, and partially satisfies the humanities breadth requirement.
- Students interested in environmental field study abroad should consult with the academic chair regarding course substitutions.
- Students considering environmental careers should choose a minor (or second major) that best complements their environmental interests and consider classes not required for the major but recommended for many environmental studies careers, such as Chemistry 111, Chemistry 112, Mathematics 120 (Statistics), Mathematics 151, and writing-intensive courses.
- Students who plan to pursue further environmental study or an environmental career after graduation are strongly encouraged to consult with an environmental studies faculty member as soon as possible.

A **minor in environmental studies** consists of:

Introductory Course (1 course)

_____ ENVS 135 Fundamentals of Environmental Studies (Fall and Spring)

Other ENVS classes (select at least 2 courses)

_____ ENVS 245 Food Systems (Fall)

_____ ENVS 270 Environmental Science (Spring; PREQ: ENVS 135 with C or higher)

_____ ENVS 359 Resilient Systems (Fall; PREQ: Junior or Senior standing and ENVS 135 with C or higher)

_____ ENVS 379 Environmental Policy (Spring; PREQ: Junior or Senior standing and ENVS 135 with C or higher)

_____ ENVS 439 The Decision Process (Spring; PREQ: Senior standing or instructor permission and ENVS 135 with C or higher)

Electives (select 2 courses or 1-2 more from above category)

_____ ANTH 263 Whose Amazon? (usually offered Spring)

_____ BIOL 259 Conservation and Restoration Ecology (Fall; PREQ: BIOL 115)

_____ BIOL 346 Ecosystem Ecology (Spring; PREQ: BIOL 115, 116, CHEM 111, 200-level BIOL)

_____ ECO 242 Natural Resources and Environmental Economics (usually Spring; PREQ: ECO 101 OR 102)

_____ GER 255 Green Thought/Environmentalism (Spring)

_____ GER 355 Green Thought/Environmentalism (Spring; PREQ: GER 235 or GER 236)

_____ EAS 265 Environmental Issues in East Asia (Spring)

_____ PHIL 207 Ethics and the Environment (usually Spring of even-numbered years)

_____ PHIL 307 Environmental Philosophy (usually Spring of odd-numbered years; PREQ: any PHIL class and ENVS 135)

_____ PHY 240 Atmospheric and Environmental Physics (Spring, odd-numbered years; PREQ: MATH 151, MATH 152, PHY 106, PHY 107)

Other Considerations When Planning for the Minor:

- Pre-approval from the academic chair is required to substitute any course not listed.
- At least 2 classes for the minor must be at the 200-level or higher.

COURSES

ENVS 135 Fundamentals of Environmental Studies

An introduction to major environmental issues that includes fundamental concepts of environmental studies, the roots of environmental problems, options for responding to environmental problems, and challenges of achieving sustainability. Requirements met: Science Breadth. (Usually each fall and spring)

ENVS 222 Environmental Science

The course has three purposes: to provide students with basic knowledge of key environmental topics by building upon brief introductions from Fundamentals of Environmental Studies (ENVS 135), to expand upon the field work questions and habitat types studied in other environmental studies and related courses, and to provide students instruction and experience in analyzing the science of environmental controversies. Lab required. PREQ: Environmental Studies 135 with C or higher. Usually spring)

ENVS 245 Food Systems

This course challenges us to thoughtfully question how we secure one of our most fundamental needs - food. Our growing population and affluence means the global demand for food will most likely increase for at least another forty years. The question then is this: How might we feed these soon-to-be nine billion people sustainably? This course will explore the social and environmental problems linked to the production, storage, processing, distribution, and access of food. We will take an evidence-based, interdisciplinary approach to analyzing why these problems exist and how we might begin to solve them. Using introductory geographic

information systems software (GIS), we will explore the concepts of space and place in complex food systems with an emphasis on American agriculture. Each topic in this course is deliciously ripe with controversy and well suited for study using this approach. The careful consideration of several recurring themes will make this course more than a smorgasbord of food system issues. GIS lab included. Requirements met: Social Science or Science Breadth. (Each fall)

ENVS 250 Topics in Environmental Studies

A study of selected topics for beginning students based on faculty and student interests. Offered on an occasional basis. Course may be repeated when topic varies. 1 course credit.

ENVS 260 Intermediate Directed Study

Student investigation of topic of interest working in collaboration with a faculty member resulting in significant oral and written work. See On-Campus Learning Opportunities for more information. PREQ: Freshman January term or Sophomore standing. Special permission required. Offered in variable course credit from 0.25-1.00.

ENVS 294 Intermediate Student Research

Intended for less experienced students to develop and execute a research project related to environmental studies, beyond the constraints of the normal classroom, suitable for public dissemination on or off campus under mentorship of a faculty member. Typically, this work results in a formal presentation, written work, or creative works. Course credit varies from 0-1.00. PREQ: Instructor permission required.

ENVS 350/450 Advanced Topics in Environmental Studies

An investigation of selected topics for more advanced students based on faculty and student interests. Offered on an occasional basis. Course may be repeated when topic varies. Prerequisites vary. 1 course credit.

ENVS 359 Resilient Systems

This course connects people to places. It asks the question: How do we protect or restore places where people are inextricably linked to their environment? This course considers the historical and current conceptualizations of resilience and the role resilience plays in creating sustainable communities. We will first explore the ecological concept of resilience and then, using a case study approach, analyze the social and economic institutions that either build or erode a system's capacity to self-organize, learn, and adapt. For example, we will examine the characteristics that make some systems more resilient to natural disasters, disease outbreaks, or prolonged drought than other systems. We will study illustrative and diverse examples from around the world and here at home, seeking commonalities among cases while respecting context. PREQ: Environmental Studies 135 with C or higher and Junior or Senior standing or instructor permission. Requirements met: Social Science Breadth. (Each fall)

ENVS 379 Environmental Policy

This course builds upon Environmental Studies 135 and incorporates key ideas from ecology, economics, ethics, and other disciplines in a study of options for responding to environmental issues. The course examines both theoretical and actual approaches to solving and preventing environmental problems. Readings cover the history of environmental issues, the system of

environmental laws and policies in the United States and their development, leading ideas for more effective environmental policy, and the challenge of international environmental agreements. Students propose means of reducing the college's environmental impact. PREQ: Completion of Environmental Studies 135 with a grade of C or higher and Junior or Senior standing or instructor permission. (Usually each spring).

ENVS 394/494 Advanced Student Research

Intended for advanced students to develop and execute a research project related to environmental studies suitable for public dissemination under mentorship of a faculty member. Students are expected to present the results of their research in a public forum. Typically, this work results in a formal presentation, written work, or creative works. Course credit varies from 0-1.00. PREQ: Instructor permission required.

ENVS 439 The Decision Process

The incumbent governor of a western state shared this story: Upon challenging his young son to complete his homework without complaint, the boy replied, "Dad, it's not like your job is hard. When there's a problem, you just get the facts and make a decision." While the governor wisely refrained from asking his son to reconsider the complexity of making decisions in the public realm, this course does just that - it emphasizes the reality that outcomes are the result of decisions made or not made by the people involved in those processes. This course introduces two frameworks (Ostrom's institutional analysis & development framework and Lasswell's policy sciences framework) that explicitly and systematically help us organize our observations and identify relationships among variables. In other words, they help us decide what to do with the facts. The assignments in this capstone course are specifically designed to challenge students to connect the lessons learned throughout their environmental education and experience in an interdisciplinary (broad) but critical (deep) way. PREQ: Environmental Studies 135 with a C or better and Senior standing or instructor permission. Requirements met: Social Science Breadth. (Each spring)

ENVS 460 Advanced Directed Study

Student investigation of topic of interest related to the major or minor working in collaboration with a faculty member resulting in significant oral and written work. See On-Campus Learning Opportunities for more information. PREQ: Junior or Senior standing. Special permission required. Offered for variable course credit from 0.25-1.00.

ENVS 464 Teaching/Learning Participation

An individualized study that includes sharing in the instructional process for a particular environmental studies course under the supervision of the faculty member teaching the course. Open only to certain highly qualified juniors and seniors by invitation. See On-Campus Learning Opportunities for more information.

ENVS 490 Independent Study

An experiential learning activity to be approved by the Environmental Studies Steering Committee. Possible project areas include basic research, off-campus internships, and service projects. PREQ: Junior or Senior standing with preference for students who have completed their junior year. Offered in variable course credit from 0.25-1.00.

ENVS 491 Honors Thesis in Environmental Studies

Extensive independent study in the major in a topic of special interest culminating in a bachelor's thesis with oral examination by thesis committee resulting in a bachelor's degree with Honors upon completion. See Departmental Honors Program for more information. Completed in last three semesters before graduation. Offered for variable course credit from 1.00-2.00.

ENVS 492 Independent Study Off-Campus/NSOC

Student-driven independent study in a topic related to the major completed at an off-campus site. See Off-Campus Learning Opportunities for more information. PREQ: Junior or Senior standing. Special permission required. Offered in variable course credit from 0.25-1.00.